

Notice of Allowability

Application No.

10/063,054

Examiner

Cheukfan Lee

Applicant(s)

TSENG ET AL.

Art Unit

2622

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to an amendment filed March 15, 2002.
2. ☒ The allowed claim(s) is/are 1-17.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


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1. All pending claims 1-17 are allowed. Claims 1 and 9 are independent.

2. The following is an examiner's statement of reasons for allowance:

Claim 1 and its dependent claims 2-8 are allowable over the prior art of record.

Claim 1 requires an optical scanner comprising **a V-shaped track** positioned inside the casing of the scanner, the upper section of the V-shaped track including **a pair of support surfaces** extending in a direction parallel to the longitudinal direction of the V-shaped track, the support surfaces forming an included angle, and **a positioning wheel attached to the carrier chassis** that is attached, using a clamping structure, to a driving belt for moving the carrier chassis during scanning, the positioning wheel being supported by the support surfaces on the V-shaped track, the axis of the positioning wheel being perpendicular to the longitudinal direction of the V-shaped track. This structural relationship between the V-shaped track having the support surfaces, the carrier chassis, and the positioning wheel is not taught by the prior art of record.

The closest prior art references Tsai (U.S. Patent No. 5,999,277), cited below, employs a U-shaped track (2032), a ball (2034) rolling on the U-shaped track, and a cap (205) holding the ball (205). The cap (205) is indirectly attached to the contact image sensor (CIS 201) carrier chassis. The chassis support (2031) and the chassis are moved along the U-shaped track with the rotation of the ball (2034) (col. 3, lines 8-20). Tsai does not disclose a positioning wheel attached to the carrier chassis and supported

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by the support surfaces of the/a V-shaped track. The ball (2034) is not attached to the cap (205).

Another closest prior art reference Lee (U.S. Patent No. 6,888,651), cited below, does not disclose a V-shaped track. Lee discloses a V-shaped structure (12) attached to the bottom of the image sensor carriage (10) and moves along a guide rod, the structure (12) having two support surfaces in contact with a long rod (14). Lee does not disclose a V-shaped track on which a wheel (or a bump) is moved as claimed.

Claim 9 and its dependent claims 10-17 are allowable over the prior art of record. Claim 9 is similar to claim 1. Claim 9 recites a positioning bump in place of the positioning wheel of claim 1. Claim 9 requires an optical scanner comprising **a V-shaped track** positioned inside the casing of the scanner, the upper section of the V-shaped track including **a pair of support surfaces** extending in a direction parallel to the longitudinal direction of the V-shaped track, the support surfaces forming an included angle, and **a positioning bump attached to the carrier chassis** that is attached, using a clamping structure, to a driving belt for moving the carrier chassis during scanning, **a pair of protruding edges on the positioning bump** being supported by the support surfaces on the V-shaped track, the axis of the positioning bump being perpendicular to the longitudinal direction of the V-shaped track. This structural relationship between the V-shaped track having the support surfaces, the carrier chassis, and the positioning bump is not taught by the prior art of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Tsai (U.S. Patent No. 5,999,277) discloses a U-shaped track (2032), a ball (2034) rolling on the U-shaped track, and a cap (205) holding the ball (205). The cap (205) is indirectly attached to the contact image sensor (CIS 201) carrier chassis. The chassis support (2031) and the chassis are moved along the U-shaped track with the rotation of the ball (2034) (col. 3, lines 8-20). The ball (2034) is not attached to the cap (205).

Lee (U.S. Patent No. 6,888,651) does not disclose a V-shaped track. Lee discloses a V-shaped structure (12) attached to the bottom of the image sensor carriage (10) and moves along a guide rod, the structure (12) having two support surfaces in contact with a long rod (14).

Batten (U.S. Patent No. 6,771,399) discloses an injection-molded plastic positioning system for moving a sensor carriage in a flatbed scanner.

Tsai (U.S. Patent No. 6,005,685) discloses a transmission mechanism for a contact-type image scanner.

Tsai (U.S. Patent No. 5,900,951) discloses a contact image sensor image reading apparatus.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cheukfan Lee whose telephone number is (571) 272-7407. The examiner can normally be reached on 9:30 a.m. to 6:00 p.m., Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward L. Coles can be reached on (571) 272-7402. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Cheukfan Lee
September 28, 2005

A handwritten signature in black ink, appearing to read "Cheukfan Lee", with a stylized flourish above the name.